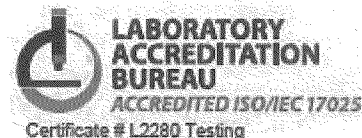




UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION 5 CHICAGO REGIONAL LABORATORY  
 536 SOUTH CLARK STREET  
 CHICAGO, ILLINOIS 60605



**Date:** 7/18/2017

**Subject:** Review of Region 5 Data for Mid America Steel Drum, Inc.

**To:** RCRA, LCD, US EPA Region 5  
 77 West Jackson Boulevard  
 Chicago, IL 60604

**From:** Colin Breslin, Chemist  
 US EPA Region 5 Chicago Regional Laboratory

The data transmitted under this cover memo successfully passed CRL's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation* and the U.S. EPA Region 5 RMD QMP, CRL performs data verification on all the data generated internally. CRL does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

X Colin Breslin 7/18/2017

Please contact the analyst with any technical report issues, Robert Thompson at (312)-353-9078 for sample project concerns, and Sylvia Griffin at (312)-353-9073 with data transmittal questions. Thank you.

Attached are Results for: Mid America Steel Drum, Inc.

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Data Coordinator and Date Transmitted

**Analyses included in this report:**

Hg TCLP CVAA

Hg TCLP CVAA



## Environmental Protection Agency Region 5 Chicago Regional Laboratory

536 South Clark Street, Chicago, IL 60605  
Phone: (312) 353-8370 Fax: (312) 886-2591

RCRA, LCD, US EPA Region 5  
77 West Jackson Boulevard  
Chicago IL, 60604

Project: Mid America Steel Drum, Inc.  
Project Number: MASD 05-04-17  
Project Manager: Jamie Paulin

Reported:  
Jul-18-17 07:17

### Analysis Case Narrative

#### General Information

Samples for the analysis of total mercury in TCLP sample extracts by cold vapor atomic absorption (CVAA) were received at the Chicago Regional Laboratory (CRL) on May 5, 2017. The samples were assigned across three CRL work orders, which are reported together in this report. The samples met the preservation requirement upon receipt. The samples were analyzed within the 28 day hold time after TCLP extraction. The designated analyst, Colin Breslin, can be reached at 312-886-2912.

The samples were prepared and analyzed according to CRL SOP AIG044E Version #3 and CRL SOP AIG044D Version #5 (based on EPA 245.1/SW-846: 7470A). Samples that were amenable to the automated preparation and analysis procedure were analyzed by AIG044E Version #3. Samples that required dilution and manual preparation were analyzed by AIG044D Version #5.

**Note: Supporting data are archived with work order 1705002.**

#### Sample Analysis and Results

The data reported herein meets the requirements of the CRL analytical SOP used for analysis and any laboratory specifications stated in the Land and Chemicals Division, Generic Quality Assurance Project Plan, dated April 19, 2017, for the site Mid-America Steel Drum, Inc. The QAPP is saved on the CRL share drive with file name: Mid America Steel Drum QAPP.pdf.

Sample results that required dilution are noted in the report as having a dilution greater than one. The dilution factors have already been applied to the final results and reporting limits.

#### Quality Control

All Quality Control (QC) audits were within CRL limits for the requested analytes or did not result in qualification of the data.



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Project Number: MASD 05-04-17  
Project Manager: Jamie Paulin

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### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
OCS-01	1705002-01	Other	May-04-17 12:55	May-05-17 07:50
OCS-03	1705002-03	Other	May-04-17 13:35	May-05-17 07:50
OCS-05	1705002-05	Other	May-04-17 14:23	May-05-17 07:50
OCS-06	1705002-06	Other	May-04-17 14:37	May-05-17 07:50
OCS-07	1705002-07	Other	May-04-17 14:50	May-05-17 07:50
OCS-10	1705002-10	Other	May-04-17 15:20	May-05-17 07:50
OCS-10 DUP	1705002-11	Other	May-04-17 15:20	May-05-17 07:50
OCS-12	1705002-13	Other	May-04-17 15:50	May-05-17 07:50
CS-01	1705003-01	Other	May-04-17 11:48	May-05-17 07:50
CS-03	1705003-03	Other	May-04-17 12:35	May-05-17 07:50
CS-04	1705003-04	Other	May-04-17 13:02	May-05-17 07:50
CS-05	1705003-05	Other	May-04-17 13:12	May-05-17 07:50
CS-06	1705003-06	Other	May-04-17 13:29	May-05-17 07:50
CS-07	1705003-07	Other	May-04-17 13:55	May-05-17 07:50
CS-08	1705003-08	Other	May-04-17 14:15	May-05-17 07:50
SFS08	1705004-07	Other	May-04-17 15:10	May-05-17 07:50
SFS09	1705004-08	Other	May-04-17 15:23	May-05-17 07:50
SFS10	1705004-09	Other	May-04-17 15:37	May-05-17 07:50
SFS10 Dup	1705004-10	Other	May-04-17 15:37	May-05-17 07:50



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Project Number: MASD-05-04-17  
Project Manager: Jamie Paulin

Reported:  
Jul-18-17 07:17

## Mercury Cold Vapor, TCLP Extracts, EPA 245.1 US EPA Region 5 Chicago Regional Laboratory

**OCS-01 (1705002-01) Matrix: Other Sampled: May-04-17 12:55 Received: May-05-17 07:50**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17E047	Jun-01-17	Jun-01-17

**OCS-03 (1705002-03) Matrix: Other Sampled: May-04-17 13:35 Received: May-05-17 07:50**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			50.0	ug/L	100	B17E051	Jun-06-17	Jun-06-17

**OCS-05 (1705002-05) Matrix: Other Sampled: May-04-17 14:23 Received: May-05-17 07:50**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			5.0	ug/L	10	B17F010	Jun-08-17	Jun-09-17

**OCS-06 (1705002-06) Matrix: Other Sampled: May-04-17 14:37 Received: May-05-17 07:50**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			5.0	ug/L	10	B17F010	Jun-08-17	Jun-09-17

**OCS-07 (1705002-07) Matrix: Other Sampled: May-04-17 14:50 Received: May-05-17 07:50**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17E047	Jun-01-17	Jun-01-17

**OCS-10 (1705002-10) Matrix: Other Sampled: May-04-17 15:20 Received: May-05-17 07:50**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17F007	Jun-07-17	Jun-07-17

**OCS-10 DUP (1705002-11) Matrix: Other Sampled: May-04-17 15:20 Received: May-05-17 07:50**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17F007	Jun-07-17	Jun-07-17

**OCS-12 (1705002-13) Matrix: Other Sampled: May-04-17 15:50 Received: May-05-17 07:50**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
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Chicago IL, 60604

Project: Mid America Steel Drum, Inc.  
Project Number: MASD-05-04-17  
Project Manager: Jamie Paulin

Reported:  
Jul-18-17 07:17

## Mercury Cold Vapor, TCLP Extracts, EPA 245.1 US EPA Region 5 Chicago Regional Laboratory

OCS-12 (1705002-13) Matrix: Other Sampled: May-04-17 15:50 Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17E047	Jun-01-17	Jun-01-17

CS-01 (1705003-01) Matrix: Other Sampled: May-04-17 11:48 Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			200	ug/L	400	B17E051	Jun-06-17	Jun-06-17

CS-03 (1705003-03) Matrix: Other Sampled: May-04-17 12:35 Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			200	ug/L	400	B17E051	Jun-06-17	Jun-06-17

CS-04 (1705003-04) Matrix: Other Sampled: May-04-17 13:02 Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			5.0	ug/L	10	B17F010	Jun-08-17	Jun-09-17

CS-05 (1705003-05) Matrix: Other Sampled: May-04-17 13:12 Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			50.0	ug/L	100	B17E051	Jun-06-17	Jun-06-17

CS-06 (1705003-06) Matrix: Other Sampled: May-04-17 13:29 Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			50.0	ug/L	100	B17E051	Jun-06-17	Jun-06-17

CS-07 (1705003-07) Matrix: Other Sampled: May-04-17 13:55 Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17F007	Jun-07-17	Jun-07-17

CS-08 (1705003-08) Matrix: Other Sampled: May-04-17 14:15 Received: May-05-17 07:50

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17F007	Jun-07-17	Jun-07-17

SFS08 (1705004-07) Matrix: Other Sampled: May-04-17 15:10 Received: May-05-17 07:50



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Jul-18-17 07:17

### Mercury Cold Vapor, TCLP Extracts, EPA 245.1 US EPA Region 5 Chicago Regional Laboratory

SFS08 (1705004-07)		Matrix: Other	Sampled: May-04-17 15:10		Received: May-05-17 07:50				
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	21.2			5.0	ug/L	10	B17F010	Jun-08-17	Jun-09-17

SFS09 (1705004-08)		Matrix: Other	Sampled: May-04-17 15:23		Received: May-05-17 07:50				
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	76.2			5.0	ug/L	10	B17F010	Jun-08-17	Jun-09-17

SFS10 (1705004-09)		Matrix: Other	Sampled: May-04-17 15:37		Received: May-05-17 07:50				
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17E047	Jun-01-17	Jun-01-17

SFS10 Dup (1705004-10)		Matrix: Other	Sampled: May-04-17 15:37		Received: May-05-17 07:50				
Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Mercury	U			0.5	ug/L	1	B17E047	Jun-01-17	Jun-01-17



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**Reported:**  
Jul-18-17 07:17

**Notes and Definitions**

U Not Detected  
NR Not Reported  
Q QC limit Exceeded